MULTIMEDIA UNIVERSITY ®

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2022 / 2023 (TERM ID 2210 & TERM ID 2215)

BDT1014 – DIGITAL TRANSFORMATION TECHNOLOGIES

(All Sections / Groups)

13 FEBRUARY 2023
9.00 a.m – 11.00 a.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 3 pages (excluding cover page) with 4 Questions only.
2. Attempt ALL questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please print all your answers in the Answer Booklet provided.

QUESTION 1 [25 Marks]

a. Explain how the fourth industrial revolution will impact your career.

(5 marks)

b. One of the various business methods that businesses employ in the creation of competitive advantage plans is Porter's Five Forces Model. Briefly describe the five forces model.

(15 marks)

c. The word "emerging technology" is typically used to describe a new technology, but it can also refer to the ongoing evolution of an existing technology. When used in different contexts, such as in the media, business, science, or educational fields, it can have slightly different meanings. Internet of Things (IoT) being an emerging trend is now being pushed mostly by technologies like edge AI, blockchain, 5G, and edge computing. Discuss the Internet of Things and list three IoT devices in this regard.

(5 marks)

QUESTION 2 [25 Marks]

a. Your best friend, Catherina, has started a highly successful custom T-shirt business from your hostel room. Each week she creates a limited-edition T-shirt focusing on the lyrics from her favourite bands. You, as her friend, see the advantages Catherina could reap by porting her business to the Internet. Catherina does not like technology and does not believe she needs it to grow her business.

i. Do you agree or disagree that Catherina needs to compete online?

(2 marks)

ii. How can creating an e-business benefit Catherina?

(3 marks)

iii. What are the challenges Catherina will face as she moves her business to the Internet?

(5 marks)

iv. How could Catherina use Web 3.0 to build loyalty among her followers?

(5 marks)

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b. Thanks to Moore's law, computing devices are getting smaller, cheaper, and faster every year, allowing innovative companies to create new devices that are smaller and more powerful than current devices. Just look at desktop, notebook and tablet computers. These are all different devices allowing users to connect and compute around the globe. Moore's law has been accurate about computing power doubling every 18 months. Do you agree or disagree that Moore's law will continue to apply for the next 20 years? Why or why not? Discuss.

(10 marks)

QUESTION 3 [25 Marks]

a. Imagine you were consulting a business that wanted to build a video game for a smart phone.

i. Which phase in the SDLC is the most critical when building a video game? Explain briefly.

(5 marks)

ii. Discuss the ethical and security issues associated with outsourcing the development of a video game.

(5 marks)

b. Increasingly, employee monitoring is not a choice; it is a risk-management obligation. Clarify the positive and negative effects associated with monitoring employees.

(10 marks)

c. Safeguarding Information is one of organisation's most vital assets. Keeping business data secure should be a top priority in any firm. This way, organisations will be able to prevent any intellectual property. It will also help with preventing identity theft protecting both employees and the customers. What technologies can a company use to safeguard information?

(5 marks)

Continued...

QUESTION 4 [25 Marks]

a. Blockchain is currently used in more than just cryptocurrencies, despite the fact that this is how most people think about it. This innovation is being actively embraced by numerous industries. eCommerce, healthcare, supply chains, transportation, and finance are just a few industries where blockchain technology has already found use. Answer the following questions on blockchain technology.

i. Describe what are blocks in blockchain technology.

ii. Explain how is a block recognized in the blockchain approach?

iii. Is it possible to modify the data once it is written in a block? Explain.

iv. Clarify what is proof-of-work in blockchain.

(12 marks)

b. Compared to traditional financial services, FinTechs have novel ways of profiting. FinTech has **FOUR (4)** potential revenue streams. Discuss.

(8 marks)

c. Undoubtedly, one of the areas of the information technology business that is expanding the fastest is fintech. This industry develops as a result of the technological integration of conventional financial services. FinTech has altered how individuals view value exchange in real-time digital cashless transactions. What promotes the growth of fintech? Clarify the drivers of FinTech.

(5 marks)

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